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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,507

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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,507	Applicant(s) MASUDA, TOSHIYUKI	
	Examiner Andrew T. Piziali	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/25/08, 1/8/08, 1/16/07, 9/20/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 refers to "a composition obtained by..." but the claim does not positively recite the presence of the constituents mentioned in the product-by-process steps. It is not clear if a specific polyester composition is being claimed. For example, the applicant claims that the polyester hair is obtained by a melt-kneading process involving specific constituents in specific parts by weight, but it is not clear that the claimed resulting polyester hair possesses the claimed constituents or the claimed parts by weight.

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

The phrase "5 % loss on heat temperature" renders the claims indefinite. It is not clear what is being lost or when that something is lost.

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The phrase “5 to 30 parts by weight of a bromine-containing flame retardant (B)...based on 100 parts by weight of a polyester (A)” renders the claims indefinite. It is not clear if the polyester (A) is being positively recited within the process and/or the product.

Regarding claims 6 and 8-10, the phrase “any one of Claim 1” renders the claims indefinite. It is not clear how the claims are dependent on more than just claim 1.

Regarding claim 8, the phrase “non-crimping fiber yarn” renders the claim indefinite. It is not clear what structure is being claimed. For example, it appears the material is capable of being crimped by physical force, but it is not clear how the fiber yarn of the current invention resists crimping sufficiently to be considered non-crimping.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Applicant's Disclosure or WO 2003/071014 to Masuda (see English language equivalent EP 1479798) in view of any one of USPN 4,732,921 to Hochberg or USPN 4,079,034 to Lemper.

The applicant and Masuda each disclose that artificial hair fibers using fibers comprising polyester as the main component are known, but that there is a need in the art to produce the hair with flame retardancy (see page 1, line 18 through page 3, line 15 of the current specification and see entire document of Masuda including [0016] and [0017]).

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Hochberg and Lemper disclose flame retardant polyester compositions obtained by melt-kneading 5 to 30 parts by weight of a bromine-containing flame retardant (B), such as tetrabromobisphenol A, tetrabromophthalic anhydride, or brominated epoxy resin, based on 100 parts by weight of a polyester (A) comprising polyethylene terephthalate, polypropylene terephthalate, or polybutylene terephthalate (see entire documents including column 4, lines 3-19 and Example A of Hochberg and column 3, line 20 through column 6, line 49 of Lemper). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the polyester hair from any suitable flame retardant polyester material, such as that disclosed by Hochberg or Lemper, because the polyester would possess flame retardancy and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 3-5, Hochberg and Lemper disclose that the halogenated bisphenol can be a mixture of materials (paragraph bridging columns 3 and 4 of Lemper and column 5, lines 36-64 of Hochberg). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the bromine-containing flame retardant (B) from any suitable mixture of known materials, such as claimed, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

A patent for a combination, which only unites old elements with no change in their respective functions, obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men. Where the combination of old elements performed a useful function, but it added nothing to the nature and quality of the subject matter

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already patented, the patent failed under §103. When a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious. **KSR v. Teleflex.**

Regarding claims 6 and 7, Hochberg and Lemper disclose that antimony trioxide and other antimony compounds may be added (column 6, lines 7-14 of Hochberg and column 6, lines 16-34 of Lemper).

Regarding claim 8, considering that the hair comprises a substantially identical composition, it appears to inherently possess the claimed feature. In addition, Masuda discloses that the hair is non-crimping fiber yarn ([0078]).

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claim 9, Masuda, Hochberg and Lemper disclose that the composition may comprise dye additives ([0079] of Masuda, column 6, lines 56-61 of Hochberg, and column 6, lines 6-15 of Lemper).

Regarding claim 10, Masuda discloses that the hair may have the claimed fineness ([0078]).

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5. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Applicant's Disclosure or WO 2003/071014 to Masuda in view of any one of USPN 4,732,921 to Hochberg or USPN 4,079,034 to Lemper as applied to claims 1-10 above, and further in view of USPN 4,916,013 to Maeda.

Regarding claim 8, Maeda discloses that it is known in the artificial polyester hair art to construct hair as a non-crimping fiber (column 4, line 44 through column 5, line 36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the hair in the state of non-crimping fiber yarn, motivated by a desire to decrease the need for combing.

Regarding claim 10, Maeda discloses that it is known in the artificial polyester hair art to use hair with a fineness of 30 to 70 denier (see entire document including column 3, lines 27-39). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the hair with a fineness of 30 to 70 denier, motivated by the expectation of successfully practicing the invention of applicant's disclosure and/or Masuda.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/

Primary Examiner, Art Unit 1794